Chapter 1

Indtroduction

This chapter details the different parts of the following thesis.

1.1 Scope

1.2 Aims

The aims of this research are:

Firstly, understand the industries views on when fire enigineers should be involved in a project and how involving fire engineers affects the costs of a project.

Secondly, analyse and interpret fire incident data collected by Department of Communities and Local Government (CLG) and the Fire Protection Association (FPA).

Lastly, using the collected data, consturct a cost benefit tool for use by fire engineers to easily propose different cost design proposals to a client and make it clear on the cost benefits of one design over the other.

1.3 Objectives

Specific objectives to meet the aims of this research are as follows:-

1. To investigate the current practise within the fire engineering industry through questionnaires and interviews;
2. Analyse questionnaires and interviews to consider if a cost benefit tool is needed;

3. Review of fire protection measures and their applications;
4. Identify the different aspects that will affect the costs of a final design;
5. Statistically analyse data collected by CLG and FPA;
6. Use the FPA and CLG data as an evidence base, develop a cost benefit tool framework.

1.4 Publications

Publications published as part of this PhD are detailed below and are referenced in the text as required. These are included at the end of this thesis.

1. C Salter, N Bouchlaghem (2011), **Fire Engineering in the UK : A UK Practitioners View**, *International Conference on Building Resilience*.
2. C Salter, G Ramachandran, N Bouchlaghem (2011), **A Cost Benefit Tool for Fire Protection Engineers : An Analysis**, *2nd IRMP Conference*, Glasgow University.

1.5 Structure of Thesis